Application No. 10/032,325
Filing Date: 03/04/2002
In re Re-Issue of 5,732,212
Amendment in Response to Non-Final
    Office Action dated March 30, 2010

REMARKS

STATUS OF THE CLAIMS AND SUPPORT FOR THE CHANGES TO THE CLAIMS

The status of the claims is presented below:

Claims 1-21 (Pending)

Claims 22-122 (Canceled)

Claims 123-128 (Pending)

Claims 129-135 (Canceled)

Claims 136-140 (Pending)

Claims 141-143 (Canceled)

Claims 144-162 (Pending)

Claims 163-164 (Canceled)

Claims 165-170 (Pending)

Claim 171 (Canceled)

Claims 172-183 (Pending)

Claims 184-185 (Canceled)

Claims 186-189 (Pending)

Claims 190-192 (Canceled)

Claims 193-221 (Pending)

Claims 222-225 (Canceled)

Claim 226 (Pending)

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Claims 227-238 (Canceled)

Claims 239-246 (Pending)

Support in the disclosure for the changes to the claims:

Claim 123 has been amended to recite "either ... or" instead of "either ... and". The change is believed to be typographical in nature and is therefore self-supporting.

Claim 194 has been amended to make even more clear that which is believed to have already been recited by that claim – i.e., that the recited elements after "comprising" are part of the claimed "computer monitoring system" as opposed to being part of the data processing device. The change is believed to be typographical in nature and is therefore self-supporting.

Claim 212 has been amended to make even more clear that which is believed to have already been recited by that claim – i.e., that the recited elements after "comprising" are part of the claimed "remote access system" as opposed to being part of the host computer. The change is believed to be typographical in nature and is therefore self-supporting.

Claim 226 has been amended to be written in independent form, incorporating the limitations of claim 223, thus the change is self-supporting.

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RESPONSE TO THE OFFICE ACTION

Favorable reconsideration of the present application, in view of the present amendment and in light of the following discussion, is respectfully requested.

Claims 1-21, 123-128, 136-140, 144-162, 165-170, 172-189, 191-221, 226 and 239-246 are pending in the application. Claims 222-225 were canceled, but no claims have been added herewith. Claims 123, 194, 212 and 226 have been amended herewith. As discussed above, the changes are believed to be self-supporting, and, therefore, no new matter has been added.

In the outstanding Office Action, the rejection of all of the claims previously appealed was withdrawn, and new grounds for rejection were entered for all pending claims. The outstanding Office Action includes the following issues: (1) the oath or declaration was objected to as not containing the written consent of all assignees; (2) the specification of the patent for which re-issue is sought was objected to as not being in double column format according to 37 C.F.R. 1.173(a)(1); (3) all pending claims were rejected as being based on an allegedly defective oath; (4) claims 123, 194 and 212 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite; and (5) all claims added in the reissue application were rejected under 35 U.S.C. 103(a) as being unpatentable for the reasons set forth in their corresponding sections below.

Objection to the Oath or Declaration

In response to the objection to the oath or declaration, that objection is respectfully traversed. As filed herewith, the assignee of the entire right, title and interest to the patent, Avocent Huntsville Corporation, the successor to Cybex Computer Products Corp., has executed

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the Consent of Assignee and Statement under 37 C.F.R. 3.73(b) showing the chain of title to the

patent undergoing re-issue and showing that the sole assignee, through its Vice President and

Assistant General Counsel, consents to the re-issue of this patent. Moreover, the original Assent

of Assignee filed for this re-issue stated that Cybex Computer Products Corp. was the sole

assignee and provided a chain of title showing that ownership. Thus, no petition under 37 C.F.R.

1.183 was or is required. In addition, the Office Action alleges that a "new oath or declaration in

compliance with 37 CFR 1.67(a) identifying this application by application number and filing

date is required." However, it is not the oath or declaration itself that has been alleged to be

defective, rather the consent of assignee. Thus, in light of the updated Consent of Assignee and

Statement under 37 C.F.R. 3.73(b), it is respectfully submitted that this objection has been

overcome.[1]

Objection to the Specification

        In response to the objection to the specification, a copy of the patent for which reissue is

requested is provided herewith in double column format. Out of an abundance of caution, the

non-original claims which are currently pending are submitted herewith with the original claims.

The submission of the patent in this form does not introduce any new matter.

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[1] If the Office Action is alleging that a Petition to accept the reissue declaration should have been filed as Mr.
Perholtz cannot be found, it is respectfully noted that such a Petition was filed and granted in the parent reissue
application (see Decision on Petition dated December 10, 1999, in parent application no. 09/228,747), and no
separate Petition is believed to be required in this child application that claims priority to that application.

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Rejection of the Non-Original Claims as Being Based upon a Defective Reissue Declaration

In response to the rejection of the non-original claims as being based upon a defective reissue declaration, it is respectfully submitted that the declaration itself has not been alleged to be defective, but rather the consent of assignee. Thus, in light of the updated Consent of Assignee and Statement under 37 C.F.R. 3.73(b), it is respectfully submitted that these rejections have been overcome.

Rejection of Claims 123, 194 and 212 under 35 U.S.C. 112, Second Paragraph

In response to the rejection of claims 123, 194 and 212, it is respectfully submitted that those grounds for rejection have been rendered moot by the amendments to those claims made herewith. While it is respectfully submitted that each of those claims would have been understood by those of ordinary skill in the art in light of the specification, the changes have been made in an effort to accelerate prosecution and remove issues on appeal.

Rejection of Claims 123-125, 186, 188 and 193 under 35 U.S.C. 103(a)

In response to the rejection of claims 123-125, 186, 188 and 193 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,404,551 (hereinafter "the '551 patent") and U.S. Patent No. 4,983,307 (hereinafter "the '307 patent"), those grounds for rejection are respectfully traversed.

Claim 123

Claim 123, in pertinent part, recites:

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an on-screen display process, execution of the on-screen display process at the remote site providing a pop-up screen on the remote display device, the pop-up comprising a menu identifying the host computers at the plural host computer sites, the pop-up screen at least overlaying the video appearing on the remote display device as a result of the first connection; whereupon operation of the remote input device in response to the menu of the pop-up screen causes the remote site to terminate the first connection and to establish a second connection between a second selected host computer and the remote site.

The Office Action has admitted that the '551 patent does not teach such a limitation. Instead, the Office Action attempts to overcome the admitted deficiency by alleging that the '307 patent teaches such a limitation and cites to col. 55, lines 11-30, of the '307 patent. With respect to that limitation, the entirety of the analysis of the Office Action is two sentences which state "McKay [the '307 patent] disclosed a system which allowed a remote terminal user to select and access a host. The program provides menu-driven services to the user, including 'user selection of a host system and application.'" Nowhere in that analysis does the Office Action allege, much less prove, that the '307 patent teaches that "the pop-up screen [is] at least overlaying the video appearing on the remote display device as a result of the first connection" or that "operation of the remote input device in response to the menu of the pop-up screen causes the remote site to terminate the first connection and to establish a second connection between a second selected host computer and the remote site." Accordingly, since the '307 patent does not overcome the admitted deficiency of the '551 patent, the combination of elements fails to teach the same limitation not taught by the references individually.

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Furthermore, the alleged motivation to combine the '551 and '307 patents is also deficient. The Office Action alleges that the '551 patent "disclosed using a single keyboard to selectively display any inputs from a remote terminal" and that the '307 patent "presented using a menu system to allow user selection." The Office Action then asserts that "It would have been obvious to one of ordinary skill in the art at the time of the invention to add a menu system to the selection techniques of [the '551 patent] in order for the user to see which video displays they were selecting from." The Office Action, having used the claims and specification as a roadmap, makes this allegation without citing to any evidence. Where, for example, is the evidence that one of ordinary skill in the art even would have recognized that there was a problem with the '551 patent to be solved and that any such problem would be addressed by the '307 patent?

In addition, even if the '551 and '307 patents were to be combined, there is no evidence that they would have been combined as alleged. The Office Action has provided no analysis of where in the system of the '551 patent one of ordinary skill in the art would have added "an on-screen display process" such that it is at the remote site. Said differently, where on the remote site is the on-screen display process supposedly running? There is no evidence that it would have been on the remote site as there is no mechanism disclosed in the '551 patent to enter the information identifying the host computers at the plural host computer sites such that the on-screen display process would have access to the information on the remote site. Thus, the alleged combination does not disclose the claimed on-screen display process. Therefore, claim 123 and its dependent claims are not rendered obvious by the alleged combination of references.

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Claims 186 and 188

In response to the rejection of claims 186 and 188, those grounds for rejection are respectfully traversed. As was discussed above with respect to claim 123, the alleged motivation to combine the '551 and '307 patents is deficient. The Office Action alleges that the '551 patent "disclosed using a single keyboard to selectively display any inputs from a remote terminal" and that the '307 patent "presented using a menu system to allow user selection." The Office Action then asserts that "It would have been obvious to one of ordinary skill in the art at the time of the invention to add a menu system to the selection techniques of [the '551 patent] in order for the user to see which video displays they were selecting from." The Office Action, having used the claims and specification as a roadmap, makes this allegation without citing to any evidence. Where, for example, is the evidence that one of ordinary skill in the art even would have recognized that there was a problem with the '551 patent to be solved and that any such problem would be addressed by the '307 patent? Without evidence that one of ordinary skill in the art would have made the proposed combination, claim 186 and its dependent claims cannot be found to be rendered obvious by the proposed combination.

With respect to claim 188, which depends from claim 186 discussed above, claim 188 adds the limitation that "the keyboard interface communicates with the selected computer processor *through a keyboard port of the selected computer processor*." In support of its assertion that the '551 patent teaches this additional limitation, the Office Action cites to col. 3, lines 15-31. That citation, however, is made without any analysis of how the reference shows what port the selected computer interfaces with when communicating with the keyboard interface. In fact, the paragraph crossing cols. 3 and 4, cited by the Office Action with respect to

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the "network access device" limitation of claim 186 shows that the '551 patent does not disclose

what kind of port is used. That paragraph states that a "conventional multiple serial line

interface 70, such as a Digital Equipment Corporation KL8A, [is used] for interfacing the

terminal controller CPU 60 with the remote host computers *(not shown)* via modem 47."

(Emphasis added.) Thus, the remote host computers are only disclosed as being connected via a

serial data feed which is not inherently connected to a "keyboard port of the selected computer"

as claimed. Accordingly, claim 188 is further patentable for this reason as well.

Claim 193

With respect to claim 193, the Office Action admits that the claimed "pop up menu utility

providing at least a user choice at the remote site computer to obtain access to the host computer

via the connection utility" is not taught by the '551 patent. In an attempt to overcome the

admitted deficiency in the '551 patent, the Office Action cites the '307 patent as teaching such a

limitation. However, the alleged motivation to combine the '551 and '307 patents is deficient.

The Office Action alleges that the '551 patent "disclosed using a single keyboard to selectively

display any inputs from a remote terminal" and that the '307 patent "presented using a menu

system to allow user selection." The Office Action then asserts that "It would have been obvious

to one of ordinary skill in the art at the time of the invention to add a menu system to the

selection techniques of [the '551 patent] in order for the user to see which video displays they

were selecting from." The Office Action, having used the claims and specification as a roadmap,

makes this allegation without citing to any evidence. Where, for example, is the evidence that

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one of ordinary skill in the art even would have recognized that there was a problem with the

'551 patent to be solved and that any such problem would be addressed by the '307 patent?

Also, as was the case with respect to the rejection of claim 123 discussed above, the

Office Action has not even asserted, let alone proven, that the alleged "user selection of a host

system and application" would be located at the "remote site computer" where the remote

computer software utility is located. Said differently, where on the remote site is the pop up

menu utility supposedly running? There is no evidence that it would have been on the remote

site computer as there is no mechanism disclosed in the '551 patent to render the user choice on

the remote site. Thus, the alleged combination does not disclose the claimed pop up menu utility

at the claimed location. Therefore, claim 193 and its dependent claims are not rendered obvious

by the alleged combination of references.

Rejection of Claim 211 under 35 U.S.C. 103(a)

The Office Action alleges that claim 211 is rendered obvious by the combination of the

'551 patent and U.S. Patent No. 5,062,059 (hereinafter "the '059 patent"). That ground for

rejection is respectfully traversed.

Claim 211 recites "a main CPU to coordinate a analog to digital conversion of host video

signals from the host server." The Office Action alleges that the '551 patent teaches such a

limitation and cites col. 4, lines 44-54, and col. 3, lines 37-47. The Office Action, however, does

not describe how analog to digital conversion is performed under the control of any CPU. In

fact, as shown in Figure 9, the video matrix switch 44 is an analog switch whose output is not

disclosed as being converted to digital form.

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The Office Action also alleges that the '551 patent discloses the claimed "video RAM to store host video signals digitized by the main CPU and field programmable gate array." In support of its rejection of this limitation, the Office Action cites the display video RAM of the '551 patent, as described in column 4, lines 37-67. That cited section of the '551 patent describes a portion of Figure 3, in which the output of a RAM storing digital data is connected to a video signal generator 102 which produces analog video that then is connected to the VMS (video matrix switch 44). Thus, the Office Action has not shown that the video RAM stores video signals *digitized* by the main CPU.

Those limitations also are not alleged to be taught by the '059 patent. Accordingly, the combination of references fails to teach the same limitations not taught by the references individually. Accordingly, the combination of references fails to render obvious claim 211.

Rejection of Claims 157, 158, 160, 161, 241 and 242 under 35 U.S.C. 103(a)

The Office Action has rejected claims 157, 158, 160, 161, 241 and 242 under 35 U.S.C. 103(a) as being unpatentable over the '551 patent in view of U.S. Patent No. 5,276,863 (hereinafter "the '863 patent"). Those grounds for rejection are respectfully traversed.

Claims 157 and 158

With respect to claim 157, the Office Action admits that the '551 patent does not disclose the limitation of "whereby at least a situation requiring a reset operation appears at the host unit and (2) upon receipt of a reset command, causes the host unit to initiate a reset operation of the host computer." The Office Action attempts to overcome the admitted deficiency of the '551

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patent by alleging that the '863 patent discloses the limitation missing from the '551 patent. In

support thereof, the Office Action asserts that the '863 patent "sent a remote reset request to the

console computer" and cites column 14, lines 3-17 of the '863 patent. Missing from the analysis

is any evidence to support the assertion that the '863 patent teaches "whereby at least a situation

requiring a reset operation appears at the host unit." Said differently, what in the '863 patent is

the Office Action alleging *appears* at the "host unit" to indicate that there is a situation that

requires a reset operation? Absent any evidence that such a limitation is taught by the '863

patent, the Office Action cannot make a *prima facie* case of obviousness with respect to claim

157. Since claim 158 depends from claim 157, neither claim 157 nor claim 158 is rendered

obvious by the combination of the '551 and '863 patents.

Claims 160 and 161

    With respect to claim 160, the Office Action admits that the '551 patent does not disclose

the limitations of "whereby at least a situation requiring a reset operation appears at the host

unit" and "receiving a reset command at the host unit and thereupon causing the host unit to

initiate a reset operation of the host computer." The Office Action attempts to overcome the

admitted deficiency of the '551 patent by alleging that the '863 patent discloses the limitation

missing from the '551 patent. In support of this assertion, the Office Action asserts that the '863

patent "sent a remote reset request to the console computer" and cites column 14, lines 3-17, of

the '863 patent. Missing from the analysis is any evidence to support the assertion that the '863

patent teaches "whereby at least a situation requiring a reset operation appears at the host unit."

Said differently, what in the '863 patent is the Office Action alleging *appears* at the "host unit"

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to indicate that there is a situation that requires a reset operation? Absent any evidence that such

a limitation is taught by the '863 patent, the Office Action cannot make a *prima facie* case of

obviousness with respect to claim 160. Since claim 161 depends from claim 160, neither claim

160 nor claim 161 is rendered obvious by the combination of the '551 and '863 patents.

        Claims 241 and 242

        With respect to claim 241, the Office Action admits that the '551 patent does not disclose

the limitation of "a control module having an AC power input to receive AC power from an

external power source, an AC power output to deliver the AC power from the external power

source to the host computer, a switch therebetween, and a control data input to receive a reboot

signal and thereupon interrupt AC power to the host computer by operation of the switch." The

Office Action attempts to overcome the admitted deficiency of the '551 patent by alleging that

the '863 patent discloses the "control module" limitation missing from the '551 patent. In

support of this assertion, the Office Action asserts that the '863 patent teaches "Front panel

functionality" and cites column 6, lines 49-65 of the '863 patent. That cited section, however,

does not discuss AC power at all and therefore does not disclose interrupting AC power to the

host computer using a switch between external power source and the host computer. In fact, as

described in col. 14, lines 10-12, "if the computer system determines that a remote reset request

is included in a received data packet, a non-maskable interrupt is generated" rather than

interrupting the AC power. Accordingly, if the code for handling the non-maskable interrupt in

the '863 patent had become corrupted, then even a sent remote request would not result in a

system rebooting, whereas with the claimed AC power cycling it would. Absent any evidence

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that the claimed "control module" is taught by the '863 patent, the Office Action cannot make a

prima facie case of obviousness with respect to claim 241. Since claim 242 depends from claim

241, neither claim 241 nor claim 242 is rendered obvious by the combination of the '551 and

'863 patents.

     No Motivation to Combine the '551 and '863 Patents to Arrive at the Inventions of

     Claims 157, 158, 160, 161, 241 and 242

     In addition, there is no tenable motivation for combining the two references as asserted

with respect to claims 157, 158, 160, 161, 241 and 242. The Office Action alleges that it would

have been obvious to combine the '551 and '863 patents because the '551 patent discloses "the

ability to communicate with a remote system and/or insert data" and the '863 patent discloses

"using a diagnostic program … which would require reboot of a computer when there is a system

hangup or crash." It further states that "Remote diagnostics would require the ability to

communicate with a remote system to retrieve and/or transmit data." However, such assertions

miss that the '863 patent already could communicate between the remote console client

computer and the console server computer, so why would one of ordinary skill in the art need to

add the system of the '551 patent to the '863 patent. Also, the 551 patent is directed to serial

data feeds and personal computer (e.g., Apple II), whereas the '863 patent is directed to VAX

mainframe computers (e.g., see the last two paragraphs of col. 18). The Office Action has not

shown why one of ordinary skill in the art would have overlooked these differences and

nonetheless been motivated to make such a combination as alleged. Claim 157, 158, 160, 161,

241 and 242 are therefore patentable for those reasons as well.

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Rejection of Claims 159 and 162 under 35 U.S.C. 103(a)

The Office Action has rejected claims 159 and 162 under 35 U.S.C. 103(a) as being

unpatentable over the '551 patent in view of the '863 patent as applied to claims 157 and 160

above, and further in view of U.S. Patent No. 4,779,224 (hereinafter "the '224 patent"). Claims

159 and 162 depend from claims 157 and 160, respectively. As claims 157 and 160 have been

shown to be patentable based on the arguments set forth above, claims 159 and 162 are likewise

patentable.

Claims 159 and 162 are also additionally patentable based on their recitation that "the

host unit includes a carrier detect circuit and automatically causes the reset operation upon a

determination made by the carrier detect circuit of the absence or presence of the carrier signal."

The Office Action admits that such a limitation is not taught by the combination of the '551 and

'863 patents. The Office Action asserts that the '224 patent teaches such a limitation and cites

col. 4, lines 40-68. In support of that assertion, the Office Action states the '224 patent "detected

the presence or absence of a carrier detect signal [that] was used to determine whether to reset

the base verifying unit to receive another call." Such an allegation does not allege that the reset

signal is a reset signal to control an AC power switch. The "base verifying unit" 12 of the '224

patent controls whether a modem 14 can connect to a computer 10, not whether the power is

cycled to the computer 10. Thus, the same limitation not taught by the '551 and '863 patents is

not taught by the '224 patent or the combination of all three patents.

Even assuming that one of ordinary skill in the art would have combined the '224 patent

with the '551 and '863 patents, there is no evidence that the combination of elements would have

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resulted in the configuration proposed by the Office Action. For example, given that the '551

patent discloses modems, one of ordinary skill in the art, following the teachings of the '224

patent, would instead have placed the base verifying unit 12 between the modem and computer,

as disclosed in the '224 patent such that the base verifying unit 12 could be reset rather than the

AC power to the computer. To change from resetting the modem connection to resetting the

computer shows a change in the principle of operation of the '224 patent. This is an indication

of non-obviousness. See MPEP 2143.01 ("If the proposed modification or combination of the

prior art would change the principle of operation of the prior art invention being modified, then

the teachings of the references are not sufficient to render the claims prima facie obvious. *In re*

Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)"). Thus, claims 159 and 162 are further

patentable over the applied combination of references.

Rejection of Claims 136, 139, 144, 146, 151 and 220 under 35 U.S.C. 103(a)

        The Office Action has rejected claims 136, 139, 144, 146, 151 and 220 under 35 U.S.C.

103(a) as being unpatentable over the '551 patent in view of U.S. Patent No. 4,018,990

(hereinafter "the '990 patent"). Those grounds for rejection are respectfully traversed.

        Claims 136, 139, 144, 146 and 151

        With respect to independent claim 136, the Office Action admits that the '551 patent does

not teach "a computer access interface … transmitting to the remote access facility via the non-

dedicated serial channel a digitized version of the analog video signals." However, the Office

Action alleges that the '990 patent teaches the limitation admittedly missing from the '551

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patent. The Office Action alleges that the '990 patent "disclosed analog to digital conversion of

video signals prior to transmission." With respect to the motivation to combine the '551 and

'990 patents, the Office Action asserts:

> Howse [the '551 patent] disclosed feeding a remote video input to a
>
> terminal. Long [the '990 patent] disclosed that due to delays from remote
>
> sources, (col. 1, lines 55-67) synchronization is necessary in a manner to prevent
>
> signal degradation. [The '551 patent] received remote signals, which would be
>
> subject to the signal degradation which [the '990 patent] is designed to prevent.

In fact, as disclosed in the very portion (col. 1, lines 55-67) of the '990 patent cited by the Office

Action, the signal degradation discussed in the '990 patent occurs because of faulty

synchronization between two video sources in a remote TV operation. The Office Action has not

shown where there are any two such video sources that need synchronization in the '551 patent.

Instead, the video matrix switch switches such that only a single video source at a time is shown

on any video display unit.

In addition, the Office Action has not shown that the '551 patent "disclosed feeding a

remote video input to a terminal" as alleged. The data feeds from remote host computers in the

'551 patent are digital feeds already. Thus, how is there a motivation to "digitize" the signals

from the remote host computers that are already digital? The answer is that there is no such

motivation. Accordingly, claim 136 and its dependent claims 139, 144, 146 and 151 are not

rendered obvious by the proposed combination of references.

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Claim 220

With respect to independent claim 220, the Office Action alleges that the '551 patent

teaches "a set of circuit modules in communication with a set of corresponding host computers to

receive analog video signals from the corresponding host computers, to digitize the analog video

signals." The Office Action cites col. 3, lines 32-37, of the '551 patent as disclosing that

limitation. However, the cited section is actually devoid of any reference to digitizing the analog

video signals and states:

> Referring now to FIG. 2, a functional block diagram of a typical preferred
>
> terminal controller configuration, such as terminal controller 46a or 46b which
>
> acts as the communications interface between its associated keystations, via the
>
> video matrix switch 44a or 44b, and the remote host computers is shown. As
>
> shown and preferred in FIG. 2, the typical terminal controller, such as controller
>
> 46a, preferably includes a central processing unit 60, such as a Digital Equipment
>
> Corporation KK8A CPU and associated memory 62, 64 and 66.

In fact, the allegation that the '551 patent teaches "a set of circuit modules in communication

with a set of corresponding host computers to receive analog video signals from the

corresponding host computers, to digitize the analog video signals" is contrary to the position

taken in the Office Action with respect to claim 136 (discussed above). With respect to claim

136, the Office Action admitted that the '551 patent does not teach "a computer access interface

… transmitting to the remote access facility via the non-dedicated serial channel a digitized

version of the analog video signals."

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Even assuming that the Office Action intended to allege that the '990 patent teaches "a

set of circuit modules in communication with a set of corresponding host computers *to receive*

analog video signals from the corresponding host computers, [and] to digitize the analog video

signals," such a limitation is not taught by the TV-based system of the '990 patent.

Moreover, the Office Action asserts that the '990 patent "disclosed ... to *synchronize* the

video signals *to a video display characteristic of the remote computer*." The Office Action cites

col. 2, lines 14-42, in support of this assertion. However, that section actually describes

synchronizing a remote video signal to a local video signal to enable follow-on broadcast TV

equipment to transmit the combine video signal. Specifically, it states:

> *The stored video signals are clocked out* from the random access memory
>
> *by output clock signals* derived from the composite sync and color burst portions
>
> of a local signal comprising either composite video or composite sync and color
>
> burst, *which is synchronized with the station sync generator*. More particularly,
>
> *the output clocking signals are phase and frequency locked to* the vertical,
>
> horizontal, and color burst frequency portions of *the local video signal. The video*
>
> *signals* fetched from the random access memory *are converted from digital to*
>
> *analog form by the output clock signals and are coupled to the follow-on*
>
> *broadcast equipment*.

Emphasis added. Thus, the '990 patent does not describe "synchroniz[ing] the video

signals to a video display characteristic of the remote computer" as alleged. Since this

limitation is not taught by either of the references individually, it is not taught by the

combination either.

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With respect to the motivation to combine the '551 and '990 patents, the Office Action asserts:

> Howse [the '551 patent] disclosed feeding a remote video input to a
>
> terminal. Long [the '990 patent] disclosed that due to delays from remote
>
> sources, (col. 1, lines 55-67) synchronization is necessary in a manner to prevent
>
> signal degradation. [The '551 patent] received remote signals, which would be
>
> subject to the signal degradation which [the '990 patent] is designed to prevent.

In fact, as disclosed in the very portion (col. 1, lines 55-67) of the '990 patent cited by the Office Action, the signal degradation discussed in the '990 patent occurs because of faulty synchronization between two video sources in a remote TV operation. The Office Action has not shown where there are any two such video sources that need synchronization in the '551 patent. Instead, the video matrix switch switches such that only a single video source at a time is shown on any video display unit.

In addition, the Office Action has not shown that the '551 patent "disclosed feeding a remote video input to a terminal" as alleged. The data feeds from remote host computers in the '551 patent are serial digital feeds already. Thus, how is there a motivation to "digitize" the signals from the remote host computers that are already digital? The answer is that there is no such motivation. Accordingly, claim 220 is not rendered obvious by the proposed combination of references.

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Rejection of Claims 137, 138, 155 and 156 under 35 U.S.C. 103(a)

The Office Action has rejected claims 137, 138, 155 and 156 under 35 U.S.C. 103(a) as

being unpatentable over the '551 patent in view of the '990 patent and further in view of Official

Notice. Those grounds for rejection are respectfully traversed. Those claims each depend from

claim 136 discussed above. Accordingly, claims 137, 138, 155 and 156 are patentable for at

least the reasons set forth above for the patentability of claim 136.

Rejection of Claim 221 under 35 U.S.C. 103(a)

The Office Action has rejected claim 221 under 35 U.S.C. 103(a) as being unpatentable

over the '551 patent in view of the '990 patent and further in view of the '059 patent. That

ground for rejection is respectfully traversed. Claim 221 depends from claim 220 discussed

above. Accordingly, claim 221 is patentable for at least the reasons set forth above for the

patentability of claim 220.

In addition, the Office Action alleges that the '551 patent teaches the limitation of "a

video RAM to store host video signals digitized by the main CPU and field programmable gate

array, and to deliver the digitized video signals to the remote access engine for delivery to the

remote computer, the video RAM in communication with the field programmable gate array to

receive at least video sync processing from the field programmable gate array." In support of its

rejection of this limitation, the Office Action cites the display video RAM of the '551 patent, as

described in column 4, lines 37-67. That cited section of the '551 patent describes a portion of

Figure 3, in which the output of a RAM storing digital data is connected to a video signal

generator 102 which produces analog video that then is connected to the VMS (video matrix

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switch 44). Thus, the Office Action has not shown that the video RAM stores video signals

digitized by the main CPU.

Rejection of Claims 243, 244 and 246 under 35 U.S.C. 103(a)

The Office Action has rejected claims 243, 244 and 246 under 35 U.S.C. 103(a) as being

unpatentable over the '551 patent in view of U.S. Patent No. 5,168,269 (hereinafter "the '269

patent"). Those grounds for rejection are respectfully traversed.

With respect to claim 243, the Office Action alleges that the '551 patent teaches "a video

process to capture and digitize the video signals from the host PC." In support of that allegation,

the Office Action cites col. 4, lines 30-66, which appears to parallel its citation of the display

RAM and col. 4, lines 37-67 as described above with reference to claim 221. However, as

discussed above, that cited section of the '551 patent describes a portion of Figure 3, in which

the output of a RAM storing digital data is connected to a video signal generator 102 which

produces analog video that then is connected to the VMS (video matrix switch 44). Thus, the

Office Action has not shown that the video RAM stores video signals *digitized* by the main CPU.

Claim 243 also recites that "the position of said mouse pointer identified by the video

process [is] delayed by a period associated with the capturing and digitizing steps." The Office

Action alleges that the '269 patent teaches this limitation and cites col. 3, lines 19-29 in support

thereof. However, that section of the '269 patent does not disclose "a period associated with the

capturing and digitizing steps." That section of the '269 patent states:

> A cursor CC which can be moved by mouse 20E appears on the display
> 20A. As cursor CC moves (or as any other changes occur in the image on display

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20A) the system transfers the changes which appear on display 20A from

CUSTOMER PC display 20A to SUPPORT PC display 10A. Display 10A has a

cursor SC the position of which tracks the position as cursor CC on display 20A.

When cursor CC moves, the cursor SC moves at a somewhat later time due to the

time required to transmit graphic data from the CUSTOMER PC 10 to the

SUPPORT PC 20.

As described in the '269 patent, the video data is not captured and digitized but rather

read from memory or intercepted through calls to the BIOS or the Display Driver. Col. 1,

lines 38-53, discloses:

There are also programs of this type available for the Macintosh personal

computer sold by Apple Computer Corp. However, program which operate on the

Macintosh always write to the display screen through the BIOS or Display Driver,

whereas program for the IBM PC often bypass the BIOS and Screen Driver and

write directly to the display, that is, they write directly to the memory that is used

to refresh the display. Thus with the IBM PC it is necessary to scan the display

(i.e. scan the memory used to refresh the display) to insure that one has detected

all changes that have occurred on the screen, whereas with the Macintosh it is

merely necessary to intercept or monitor all commands that are sent to the display

driver and to transfer these commands between the two computers.

However, such systems have the disadvantage that they require the memory reading

software and/or the video intercept software to be operating properly in order to pass on

the video from the host PC to the remote PC. By capturing and digitizing the video

signals from the host PC using the claimed remote access device, the remote PC can see

what the output of the host PC display is, even if the host PC has crashed. As such,

neither the '551 patent, nor the '269 patent nor their combination teaches the same

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positively recited limitations discussed above. Accordingly, claim 243 and its dependent

claims 244 and 246 are not rendered obvious by the cited combination of references.

Rejection of Claim 245 under 35 U.S.C. 103(a)

The Office Action has rejected claim 245 under 35 U.S.C. 103(a) as being unpatentable

over the '551 patent in view of the '269 patent as applied to claim 243, and further in view of

U.S. Patent No. 5,701,139 (hereinafter "the '139 patent"). That ground for rejection is

respectfully traversed. Claim 245, which depends from claim 243, is patentable for at least the

reasons set forth above with respect to claim 243.

Rejection of Claim 145 under 35 U.S.C. 103(a)

The Office Action has rejected claim 145 under 35 U.S.C. 103(a) as being unpatentable

over the '551 patent in view of the '990 patent as applied to claim 136, and further in view of the

'059 patent. That ground for rejection is respectfully traversed. Claim 145, which depends from

claim 136, is patentable for at least the reasons set forth above with respect to claim 136.

Rejection of Claims 152 and 153 under 35 U.S.C. 103(a)

The Office Action has rejected claims 152 and 153 under 35 U.S.C. 103(a) as being

unpatentable over the '551 patent in view of the '990 patent as applied to claim 136, and further

in view of the '863 patent. That ground for rejection is respectfully traversed. Claims 152 and

153, which depend from claim 136, are patentable for at least the reasons set forth above with

respect to claim 136.

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Claim 152 and its dependent claim 153 are further patentable based on the recitation in claim 152 of "wherein the computer processor receives AC power and the computer access interface receives a request to break the AC power and then coordinates a break in the AC power to the computer processor." The Office Action alleges that such a limitation is taught by the '863 patent and cites col. 14, lines 3-17, in support thereof. However, rather than teaching "requesting a break to the AC power," the cited section of the '863 patent discloses "if the computer system determines that a remote reset request is included in a received data packet, *a non-maskable interrupt is generated*." Accordingly, if the code for handling the non-maskable interrupt in the '863 patent had become corrupted, then even a sent remote request would not result in a system rebooting, whereas with the claimed AC power cycling it would. Thus, claims 152 and 153 are further patentable over the combination of references.

Rejection of Claim 127 under 35 U.S.C. 103(a)

The Office Action has rejected claim 127 under 35 U.S.C. 103(a) as being unpatentable over the '551 patent in view of the '307 patent as applied to claim 125 and further in view of the '863 patent and U.S. Patent No. 5,363,367 (hereinafter "the '367 patent"). That ground for rejection is respectfully traversed. Claim 127, which depends from claim 125, is patentable for at least the reasons set forth above with respect to claim 125.

Claim 127 is further patentable based on its recitation of "wherein for each of the host computers the host unit is connected between the host computer and a source of power for the host computer, and *wherein upon receipt of the cold boot command from the remote site the host unit temporarily interrupts power to the host processor of the host computer*." The Office

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Action alleges that such a limitation is taught by the '863 patent and cites col. 14, lines 3-17, in support thereof. However, rather than teaching "upon receipt of the cold boot command from the remote site the host unit temporarily interrupts power to the host processor of the host computer," the cited section of the '863 patent discloses "if the computer system determines that a remote reset request is included in a received data packet, *a non-maskable interrupt is generated.*" Accordingly, if the code for handling the non-maskable interrupt in the '863 patent had become corrupted, then even a sent remote request would not result in a system rebooting, whereas with the claimed AC power cycling it would. Thus, claim 127 is further patentable over the combination of references.

Rejection of Claims 126 and 128 under 35 U.S.C. 103(a)

The Office Action has rejected claims 126 and 128 under 35 U.S.C. 103(a) as being unpatentable over the '551 patent in view of the '307 patent apparently as applied to claim 125[2] and further in view of the '367 patent. Those grounds for rejection are respectfully traversed. Claims 126 and 128, which depend from claim 125, are patentable for at least the reasons set forth above with respect to claim 125.

Rejection of Claims 187 and 189 under 35 U.S.C. 103(a)

The Office Action has rejected claims 187 and 189 under 35 U.S.C. 103(a) as being unpatentable over the '551 patent in view of the '307 patent and in view of the '059 patent.

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[2] The Office Action states "as applied to claim 126 above," but it is claim 125 that is discussed above. Further, if the reference were to claim 126, the reference would be cylical.

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Those grounds for rejection are respectfully traversed. Claims 187 and 189, which depend from

claim 186, are patentable for at least the reasons set forth above with respect to claim 186.

In addition, with respect to claim 189, claim 189 adds the limitation that "the mouse

interface communicates with the selected computer processor through a mouse port of the

selected computer processor." In support of its assertion that the '059 patent teaches this

additional limitation, the Office Action cites to col. 4, lines 17-44. That citation, however, is

made without any analysis of how the reference shows what port the *selected* computer

interfaces with when communicating with the mouse interface. In fact, as described in that

paragraph and as shown in Figure 1, the host controller 1 is communicated with, not using the

mouse port of the selected computer processor, but instead with the fiber optic

transmitter/receiver 5. Thus, the '059 patent does not overcome the admitted deficiencies of the

'551 and '307 patents. Accordingly, claim 189 is further patentable for this reason as well.

Rejection of Claims 165-168 under 35 U.S.C. 103(a)

The Office Action has rejected claims 165-168 under 35 U.S.C. 103(a) as being

unpatentable over the '551 patent in view of the '059 patent and further in view of U.S. Patent

No. 5,375,068 (hereinafter "the '068 patent"). Those grounds for rejection are respectfully

traversed.

With respect to claim 165, the Office Action alleges that the '551 patent teaches "a

keyboard port for keyboard signals, the network connector also delivering keyboard signals from

the remote station to the keyboard port via the established logical digital data path." However,

this is inconsistent with its admission that the '551 patent does not disclose "a network connector

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to establish a logical digital data path from the user station to a remote station and to deliver the

packeted digital video signals onto the established logical digital data path." If the '551 patent

does not disclose the claimed "network connector", then it cannot disclose that "the network

connector also deliver[s] keyboard signals from the remote station to the keyboard port via the

established logical digital data path."

In addition, the '551 patent does not disclose that "the network connector also deliver[s]

keyboard signals from the remote station to the keyboard port via the established logical digital

data path" because the '551 patent is silent on to what port the keyboard signals are delivered to

that have traveled over "the established logical digital data path." In fact, the paragraph crossing

cols. 3 and 4, shows that the '551 patent does not disclose what kind of port is used. That

paragraph states that a "conventional multiple serial line interface 70, such as a Digital

Equipment Corporation KL8A, [is used] for interfacing the terminal controller CPU 60 with the

remote host computers *(not shown)* via modem 47." (Emphasis added.) Thus, the remote host

computers are only disclosed as being connected via a serial data feed which does not inherently

meet the limitation of "the network connector also delivering keyboard signals from the remote

station to the keyboard port via the established logical digital data path."

Similarly, with respect to the limitation of "a mouse port for mouse signals, the network

connector also delivering mouse signals from the remote station to the mouse port via the

established logical digital data path," the Office Action alleges that the '059 patent teaches such

a limitation. As described in col. 4, lines 17-44, and as shown in Figure 1, the host controller 1 is

communicated with, not using the mouse port of the selected computer processor, but instead

with the fiber optic transmitter/receiver 5. Thus, this limitation is not taught by the '059 patent.

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Accordingly, claim 165 and its dependent claims are not rendered obvious by the applied

combination of references.

The motivation to combine the applied references is also deficient. The Office Action

alleges that the '068 patent teaches receiving, digitizing and packetizing video signals onto the

established logical digital data path. The Office Action also alleges that "It would have been

obvious to one of ordinary skill in the art at the time of invention that in order to receive the

video from a remote terminal via a network as in [the '551 patent] that the video would need to

be transmitted in packetized format as in [the '068 patent]." This assertion is unsupported. The

'551 patent already sends digital information to be displayed on the video display units that is not

disclosed as being analog video signals that are digitized and packetized. Instead, the data

transmitted from the remote computers is disclosed as being serial character data that is already

in digital form. The Office Action is therefore attempting to change the principle of operation of

the '551 patent -- which is a sign of non-obviousness. See MPEP 2143.01 ("If the proposed

modification or combination of the prior art would change the principle of operation of the prior

art invention being modified, then the teachings of the references are not sufficient to render the

claims prima facie obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)"). Thus, one

of ordinary skill in the art would not have been motivated, as alleged, to combine the applied

references. Thus, claims 165-168 are further patentable for this reason as well.

Rejection of Claims 177, 183, 204-210 and 213-219 under 35 U.S.C. 103(a)

The Office Action has rejected claims 177, 183, 204-210 and 213-219 under 35 U.S.C.

103(a) as being unpatentable over the '068 patent in view of the '990 patent. Those grounds for

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rejection are respectfully traversed. As the alleged motivation for combining the references is

the same for each of the independent claims, the deficiency in the motivation will be discussed

after all the separate rejections of claims 177, 183, 204-210 and 213-219.

Claims 177 and 183

Claim 177 recites "a synchronize detect circuit that detects vertical and horizontal

synchronize signals from an analog video signal" and "a microprocessor that determines a

clocking rate at which the analog video signal should be sampled from the timing of the vertical

and horizontal synchronize signals." The Office Action admits that the '068 patent does not

teach such a limitation. The Office Action, however, alleges that the '990 patent teaches such a

limitation and cites to col. 2, lines 14-42 in support thereof. In fact, the cited portion of the '990

patent also does not teach the limitations missing from the '068 patent. The cited section states

"According to the invention, incoming video signals are converted from analog to digital form

and are clocked into a shift register by input clock signals derived from the horizontal sync and

color burst portions of the incoming signals. The input clock signals are phase and frequency

locked to the instantaneous horizontal frequency and the color burst frequency portions of the

incoming signal." Thus, the vertical synchronization is not detected from the input signal.

Instead, as shown in Figure 1, the vertical synchronization signal is taken from a separate input

signal. The cited section of the '990 patent describes this process when it states "The stored

video signals are clocked out from the random access memory by output clock signals *derived*

from the composite sync and color burst portions of *a local signal* comprising either composite

video or composite sync and color burst, *which is synchronized with the station sync*

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generator." This difference can even be seen in the purpose of the '990 patent which is to

synchronize video from *two* sources as opposed to trying to determine at which of a plurality of

resolutions a single video signal is being transmitted.

Claims 213-219

Claim 213 recites "a video processing circuit, including a cpu and a programmable gate

array, connected to the sync polarity circuits, the phase locked loop video dot clock circuit, and

the TTL converter to automatically determine a graphics mode of the red, green and blue analog

video signals." The Office Action alleges that such a limitation is taught by the '068 patent and

cites col. 6, lines 27-36 in support thereof. However, that cited section does not teach such a

limitation. Instead, it states:

> The video frame grabber 34 stores its digitized video data directly into a
> predetermined area of the video buffer 35. Thus, the digitized video input to the
> workstation by the frame grabber appears directly in a predetermined area on the
> monitor 30, without having to pass through processor 20 or main memory 22.
> Further, processor 20 can read back the captured video frame data from the video
> buffer, store the data in main memory 22, and further process the video data
> according to the video teleconferencing protocol described herein.

Such a disclosure does not teach "determin[ing] a graphics mode of the red, green and

blue analog video signals" where the red, green and blue analog video signals are received from

a host server. The video signals described in the cited section are received from a video camera

38 or an auxiliary source 40, not a host server. In fact the '068 patent describes in the very next

paragraph that the video signals are standard television-style video signals when it states "Frame

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grabber 34 digitizes and stores each frame of video from an analog video source and can deliver

up to 30 frames per second of digitized 640.times.480 true color (24 bits) of NTSC/

SECAM/PAL video into video frame buffer 35." Thus, those signals do not represent the

graphics mode of a host server, but instead "Video inputs 36 are each connected to a video

source, such as a video camera 38 providing live analog video signals, or an auxiliary video

storage device 40, such as a VCR or video laser disk player providing stored analog video

signals." Col. 2, lines 10-16. Thus, claims 213-219 are not rendered obvious by the proposed

combination.

With respect to claim 218, claim 218 adds the limitation of "wherein the video processing

circuit includes memory to store a set of predefined video graphics mode characteristics, and

wherein the video processing circuit further divides the red, green and blue analog video signals

into one or more video screen segment parts and compares the video screen segment parts to the

stored predefined video graphics mode characteristics." With respect to claim 219, claim 219

adds the limitation of "wherein the video processing circuit includes a video checksum manager

for storing and managing checksums associated with each video screen segment part."

The Office Action alleges that col. 10, lines 29-41, of the '990 patent teaches both those

limitations. That section is completely devoid of a discussion of checksums (claim 219) and

comparing the video screen segment parts to the stored predefined video graphics mode

characteristics (claim 218). It states:

> Analog-to-digital converter 13, shown in FIG. 6, is similar to that described in
> detail in the aforementioned reference U.S. patent. To avoid prolixity, a detailed
> discussion of the construction and operation of the unit is omitted from this
> specification. Briefly, analog-to-digital converter 13 is a parallel-serial converter

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which converts each sampled portion of the incoming analog video information

into an 8 bit binary code digital character. Each sampled portion is converted to a

digital character in two successive 4-bit parallel conversions using binary

encoders 71, 84. The analog video input signals are sampled at the rate $3f_{in}$ in

response to the receipt of each sample pulse from input clock unit 14.

Thus, claims 218 and 219 are also separately patentable.

Claims 204-210

Claim 204 recites two steps: receiving the video raster signal; and converting the video

raster signal into a digital signal representative of the information contained in the video raster

signal independently from the data processing device. The Office Action relies on a separate

reference for each element and alleges that one of ordinary skill in the art would have been

motivated to make the proposed combination. However, the motivation asserted by the Office

Action is deficient, as set forth below.

No motivation to combine the references to achieve the inventions of claims 177, 183,

204-210 and 213-219

The motivation asserted by the Office Action for combining the applied combination of

references is deficient. The Office Action alleges that one of ordinary skill in the art would have

combined the '068 and '990 patents because the '068 patent "disclosed the need to synchronize

video in a remote terminal system" and the '990 patent "disclosed the synchronization of video

in a remote terminal system." Missing from the assertion is an analysis of "on what" is there a

need to synchronize. Col. 16, lines 33-45, of the '068 patent describes the need to synchronize

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between audio and video signals ("the audio always appears to be synchronized to the displayed

video frames, regardless of the video frame rate or the loss of intervening video frames"). This

is a completely different type of synchronization from the synchronization between two video

sources (i.e., a local and a remote video signal) disclosed in the '990 patent. Furthermore, the

'990 patent is directed to the broadcast of analog television signals, and the '068 patent is

directed to video conferencing of workstations in a digital network. The Office Action has not

provided any evidence that one of ordinary skill would have combined these disparate

technologies. Thus, one of ordinary skill in the art would not have been motivated to make the

alleged combination. Accordingly, claims 177, 183, 204-210 and 213-219 are not rendered

obvious by the proposed combination of references.

Rejection of Claims 181 and 182 under 35 U.S.C. 103(a)

        The Office Action has rejected claims 181 and 182 under 35 U.S.C. 103(a) as being

unpatentable over the '068 patent in view of the '990 patent as applied to claim 177, and further

in view of U.S. Patent No. 4,748,618 (hereinafter "the '618 patent"). Claims 181 and 182,

which depend from claim 177, are patentable for at least the reasons set forth above with respect

to claim 177.

Rejection of Claims 147-150 under 35 U.S.C. 103(a)

        The Office Action has rejected claims 147-150 under 35 U.S.C. 103(a) as being

unpatentable over the '551 patent in view of the '990 patent as applied to claim 136, and further

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in view of the '618 patent. Claims 147-150, which depend from claim 136, are patentable for at

least the reasons set forth above with respect to claim 136.

Rejection of Claim 140 under 35 U.S.C. 103(a)

The Office Action has rejected claim 140 under 35 U.S.C. 103(a) as being unpatentable

over the '551 patent in view of the '990 patent as applied to claim 136, and further in view of

U.S. Patent No. 4,633,462 (hereinafter "the '462 patent"). Claim 140, which depends from

claim 136, is patentable for at least the reasons set forth above with respect to claim 136.

Rejection of Claims 239 and 240 under 35 U.S.C. 103(a)

The Office Action has rejected claims 239 and 240 under 35 U.S.C. 103(a) as being

unpatentable over the '618 patent in view of U.S. Patent No. 5,446,904 (hereinafter "the '904

patent"). Those grounds for rejection are respectfully traversed.

Claim 239 recites "video processing circuitry to digitize the RGB video information and

to decode a video format of the RGB video information received by the video input circuitry"

and "a flash palette converter RAM being addressed by the stream of digital RGB pixel data and

outputting for each RGB pixel a palette index byte corresponding to a color value of said RGB

pixel." The Office Action alleges that these limitations are taught by the '618 patent at col. 9,

line 55 to col. 10, line 5 and at col. 10, lines 6-33, respectively. Neither of those limitations are

taught by the '618 patent. As for "video processing circuitry to digitize the RGB video

information and to decode a video format of the RGB video information received by the video

input circuitry," the cited section describes storing RGB information but does not describe

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"decod[ing] a video format." Similarly, while col. 10, lines 6-33, discusses storing video data,

there is no discussion of "outputting for each RGB pixel a palette index byte corresponding to a

color value of said RGB pixel." In fact, the cited section does not even use the word index. As

those limitations are not alleged to be taught by the '904 patent, the combination fails to teach

the same limitations not taught by the references individually. Thus, claim 239 and its dependent

claim 240 are not obvious over the cited combination of references.

Rejection of Claims 169, 170, 172, 175 and 176 under 35 U.S.C. 103(a)

The Office Action has rejected independent claim 169 and its dependent claims 170, 172,

175 and 176 under 35 U.S.C. 103(a) as being unpatentable over the '551 patent in view of the

'068 patent in view of Ishikawa. Those grounds for rejection are respectfully traversed.

The Office Action alleges that the '068 patent teaches that "a video digitizer ... receives

analog video signals ..., samples the video signals, and stores the video signals in the video

memory." The Office Action also alleges that "It would have been obvious to one of ordinary

skill in the art at the time of invention that in order to receive the video from a remote terminal

via a network as in [the '551 patent] that the video would need to be transmitted in packetized

format as in [the '068 patent]." This assertion is unsupported. The '551 patent already sends

digital information to be displayed on the video display units that is not disclosed as being analog

video signals that are digitized and packetized. Instead, the data transmitted from the remote

computers is disclosed as being serial character data that is already in digital form. The Office

Action is therefore attempting to change the principle of operation of the '551 patent -- which is

a sign of non-obviousness. See MPEP 2143.01 ("If the proposed modification or combination of

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the prior art would change the principle of operation of the prior art invention being modified,

then the teachings of the references are not sufficient to render the claims prima facie obvious. *In*

re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)"). Thus, one of ordinary skill in the art

would not have been motivated, as alleged, to combine the applied references. Thus, claims 169,

170, 172, 175 and 176 are not rendered obvious by the cited combination.

Rejection of Claims 173 and 174 under 35 U.S.C. 103(a)

The Office Action has rejected claims 173 and 174 under 35 U.S.C. 103(a) as being

unpatentable over the '551 patent in view of the '990 patent and Ishikawa as applied to claim

169 above, and further in view of Official Notice. Those grounds for rejection are respectfully

traversed. Those claims each depend from claim 169 discussed above. Accordingly, claims 173

and 174 are patentable for at least the reasons set forth above for the patentability of claim 169.

Rejection of Claim 222 under 35 U.S.C. 103(a)

The Office Action has rejected claim 222 under 35 U.S.C. 103(a) as being unpatentable

over the '551 patent in view of U.S. Patent No. 5,003,595 (hereinafter "the '595 patent"). That

ground for rejection is rendered moot by the cancellation of claim 222.

Rejection of Claim 212 under 35 U.S.C. 103(a)

The Office Action has rejected claim 212 under 35 U.S.C. 103(a) as being unpatentable

over the '551 patent in view of U.S. Patent No. 4,937,036 (hereinafter "the '036 patent"). That

ground for rejection is respectfully traversed.

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The Office Action admits that the '551 patent does not teach "a video process to capture the video signals, digitize them and format them for transmission to the remote computer, even when the host computer has locked up to no longer accept any user input signals." The Office Action alleges that the '036 patent teaches this limitation and cites col. 4, lines 44-61. However, that section describes data transfer between screen portions *on the same computer*, not between a host computer and a remote computer. Moreover, the '036 patent does not disclose digitizing the video signals as they are already in digital form on the computer. The discussion from col. 4, line 44 to col. 6, line 11 discloses four different data transfer techniques, all of which do not require digitization of the video signals.

The '036 patent also does not teach "a video process to capture the video signals... even when the host computer has locked up to no longer accept any user input signals." The Office Action alleges that the '036 patent teaches this limitation because the '036 patent allegedly discloses "freezing the functionality of an emulating processor to select the data from the frozen processor to be copied." However, the '036 patent does not disclose freezing "an emulating processor" but rather "an emulated processor," and, nonetheless, an emulated processor is not a host computer, it is a program. In fact, in the case of the '036 patent, it is a program running on the same computer that the Office Action appears to allege is acting as the remote computer. However, if the two computers are the same, then one is not remote from the other. Thus, the same limitation admitted as not being taught by the '551 patent is also not taught by the '036 patent.

The combination, therefore, fails to disclose the same limitations not taught by the references individually, and claim 212 is therefore patentable over the applied combination.

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Rejection of Claims 194, 195 and 199-203 under 35 U.S.C. 103(a)

The Office Action has rejected claims 194, 195 and 199-203 under 35 U.S.C. 103(a) as

being unpatentable over the '551 patent in view of the '990 patent in view of the '036 patent.

That ground for rejection is respectfully traversed.

The Office Action admits that neither the '551 patent nor the '990 patent teaches "a

microprocessor controlled computer hardware device working even if the data processing device

is locked up and no longer processing data or input commands." The Office Action alleges that

the '036 patent teaches this limitation because the '036 patent allegedly discloses "freezing the

functionality of an emulating processor to select the data from the frozen processor to be

copied." However, the '036 patent does not disclose freezing "an emulating processor" but

rather "an emulated processor," and, nonetheless, an emulated processor is not a data processing

device, it is a program. In fact, in the case of the '036 patent, it is a program running on the same

computer that the Office Action appears to allege is the computer monitoring system. However,

if the device, i.e., the processor running the emulator, was locked up and no longer processing

data or input signals, then the "microprocessor controlled computer hardware device" would not

be working either, and the system of the '036 patent would not meet the language of the claim.

There is also no motivation to make the combination proposed by the Office Action.

With respect to the motivation to combine the '551 and '990 patents, the Office Action asserts:

Howse [the '551 patent] disclosed feeding a remote video input to a

terminal. Long [the '990 patent] disclosed that due to delays from remote

sources, (col. 1, lines 55-67) synchronization is necessary in a manner to prevent

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signal degradation. [The '551 patent] received remote signals, which would be

subject to the signal degradation which [the '990 patent] is designed to prevent.

In fact, as disclosed in the very portion (col. 1, lines 55-67) of the '990 patent cited by the

Office Action, the signal degradation discussed in the '990 patent occurs because of faulty

synchronization between *two* video sources in a remote TV operation. The Office Action has not

shown where there are any two such video sources that need synchronization in the '551 patent.

Instead, the video matrix switch switches such that only a single video source at a time is shown

on any video display unit.

In addition, the Office Action has not shown that the '551 patent "disclosed feeding a

remote video input to a terminal" as alleged. The data feeds from remote host computers in the

'551 patent are digital feeds already. Thus, how is there a motivation to "digitize" the signals

from the remote host computers that are already digital? The answer is that there is no such

motivation.

In addition, the Office Action alleges that one of ordinary skill in the art would have been

motivated to combine the '036 patent with the '551 patent and the '990 patent. The Office

Action alleges that it would have been obvious "in order to assist an administrator with

debugging a remote terminal." However, as discussed above, the '036 patent utilizes an

emulator to run one operating environment on another, so the "proprietary system" referenced by

the Office Action is not actually remote from the processor that is running the proprietary

system. Thus, it would not "assist an administrator with debugging a remote terminal" because

the emulated computer environment is not remote.

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Further, one of ordinary skill in the art would not have combined the '990 patent and the '036 patent since the display data of the '036 patent is already in digital form. Thus, there is no need for the digitization process of the '990 patent. Accordingly, claim 194 and its dependent claims 195 and 199-203 are patentable over the applied combination of references.

Rejection of Claims 196-198 under 35 U.S.C. 103(a)

The Office Action has rejected claims 196-198 under 35 U.S.C. 103(a) as being unpatentable over the '551 patent in view of the '990 patent in view of the '036 patent and further in view of the '068 patent. Those grounds for rejection are respectfully traversed. Those claims each depend indirectly from claim 193 discussed above. Accordingly, claims 196-198 are patentable for at least the reasons set forth above for the patentability of claim 193.

Rejection of Claims 224-226 under 35 U.S.C. 103(a)

The Office Action has rejected claims 224-226 under 35 U.S.C. 103(a) as being unpatentable over the '551 patent in view of the '595 patent and further in view of the '863 patent. The rejections of claims 224 and 225 are rendered moot by the cancellation of those claims.

With respect to the rejection of claim 226, claim 226 recites "an external modem and a control module providing AC power to the host computer, the external modem communicating with the control module and automatically answering calls received by the external modem on a different telecommunications link, said control module temporarily interrupting power to the host computer whenever said external modem automatically answers a call." The Office Action

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admits that neither the '551 patent nor the '595 patent teach such a limitation. Instead, the Office

Action asserts that the '863 patent teaches this limitation. That assertion is respectfully

challenged.

The Office Action cites col. 14, lines 3-17, as disclosing this limitation. That cited

section, however, does not discuss AC power at all and therefore does not disclose providing AC

power to the host computer and temporarily interrupting that power using a switch between

external power source and the host computer. In fact, as described in col. 14, lines 10-12, "if the

computer system determines that a remote reset request is included in a received data packet, a

non-maskable interrupt is generated" rather than interrupting the power. Accordingly, if the

code for handling the non-maskable interrupt in the '863 patent had become corrupted, then even

a sent remote request would not result in a system rebooting, whereas with the claimed power

cycling it would. Absent any evidence that the claimed "control module" is taught by the '863

patent, the Office Action cannot make a *prima facie* case of obviousness with respect to claim

226.

Rejection of Claim 154 under 35 U.S.C. 103(a)

The Office Action has rejected claims 154 under 35 U.S.C. 103(a) as being unpatentable

over the '551 patent in view of the '990 patent and further in view of U.S. Patent No. 5,367,670

(hereinafter "the '670 patent"). That ground for rejection is respectfully traversed. Claim 154

depends from claim 136, and claim 154 is therefore patentable for at least the reasons set forth

above with respect to claim 136.

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Rejection of Claim 223 under 35 U.S.C. 103(a)

The Office Action has rejected claim 223 under 35 U.S.C. 103(a) as being unpatentable

over the '551 patent in view of the '595 patent and further in view of the '670 patent. The

rejection of claim 223 is rendered moot by the cancellation of that claim.

All of the pending claims have been shown to be patentable based on the above

discussions. Accordingly, it is respectfully requested that the claims be indicated as allowable.

An early and favorable action to that effect is respectfully requested.

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